

EMC filter surge protection device - TTC-6-SFP-24AC-PT



1316312

<https://www.phoenixcontact.com/us/products/1316312>

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Surge protection with filter function for a 2-wire floating signal circuit, e.g., 0(4) ... 20 mA current loop, HART-compatible.

Your advantages

- Space-saving and cost-saving with a narrow overall width of just 6 mm
- Quick and tool-free installation of surge protective devices, thanks to Push-in connection technology
- Finding the right product for all possible requirements in MCR applications is easy, thanks to the complete range of products with customized features

Commercial Data

Item number	1316312
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	CLC142
GTIN	4063151598587
Weight per Piece (including packing)	34.7 g
Weight per Piece (excluding packing)	34.7 g
Country of origin	DE

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Technical Data

Product properties

IEC test classification	C1
	C3
Type	DIN rail module, one-piece
Product type	Interference filters

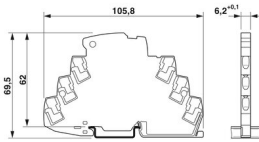
Insulation characteristics

Overvoltage category	III
Pollution degree	2

Connection data

Connection method	Push-in connection
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14

Dimensions

Dimensional drawing	
Width	6.2 mm +0.1 mm
Height	105.8 mm
Depth	69.5 mm (incl. DIN rail 7.5 mm)

Material specifications

Color	traffic grey A RAL 7042
Flammability rating according to UL 94	V-0
Insulating material	PBT
Housing material	PBT

Mechanical properties

Mechanical data

Open side panel	No
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Protective circuit

Maximum continuous voltage U_C	38 V DC
	30 V AC
Rated current	500 mA
Operating effective current I_C at U_C	$\leq 0.1 \mu A$

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Residual current I_{PE}	$\leq 10 \mu A$
Nominal discharge surge current I_n (8/20) μs (Core-Earth)	350 A
Total discharge current I_{total} (8/20) μs	700 A
Voltage protection level U_p (line-earth)	$\leq 80 V$ (C1 - 0.5 kV / 250 A)
	$\leq 80 V$ (C3 - 20 A)
Response time t_A (line-earth)	$\leq 25 ns$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 50 kHz / 150 \Omega$)
Input attenuation aE, asym.	typ. 0.3 dB ($\leq 30 kHz / 50 \Omega$)
Cut-off frequency f_g (3 dB), sym. in 50Ω system	typ. 85 kHz
Cut-off frequency f_g (3 dB), sym. in 150Ω system	typ. 95 kHz
Cut-off frequency f_g (3 dB), asym. (PE) in 50Ω system	typ. 100 kHz
Capacity (Core-Earth)	50 nF ($\pm 30 \%$)
Inductivity in series	100 μH ($\pm 30 \%$)
Resistance per path	typ. 0.35Ω
Surge protection fault message	none
Max. required back-up fuse	500 mA (FF)
Impulse durability (line-line)	C3 - 20 A
Impulse durability (line-earth)	C1 - 0.5 kV / 250 A
	C3 - 20 A

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	$\leq 4000 m$ (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %

Standards and regulations

Standards/specifications	EN 60939-1
Standards/specifications	EN 60939-2
Standards/specifications	EN 61643-21
Standards/specifications	IEC 61643-21

Mounting

Mounting type	DIN rail: TH 35 - 7.5 mm
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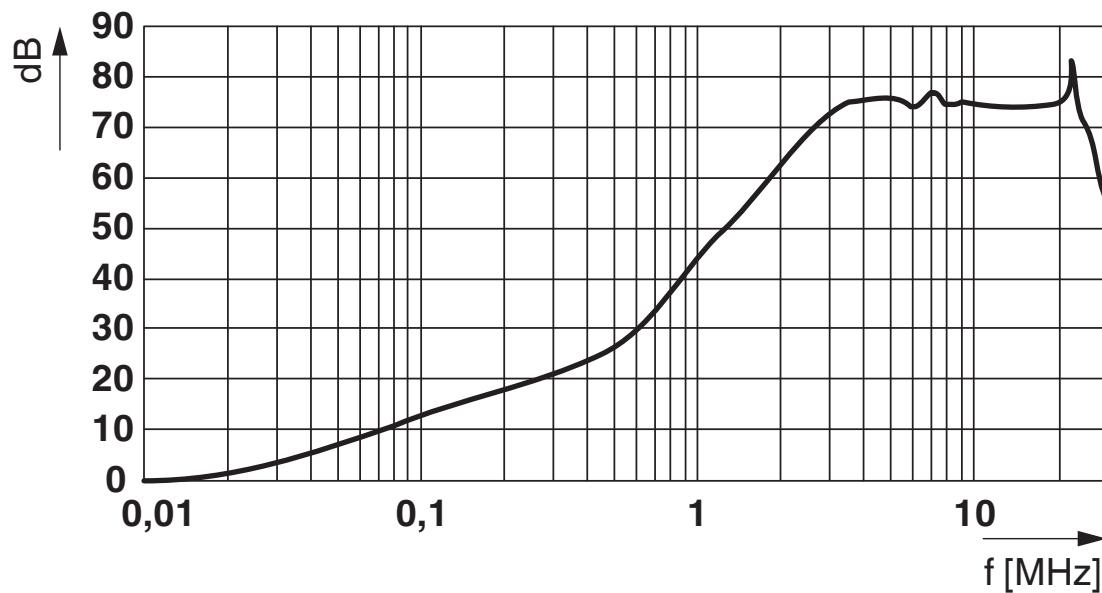


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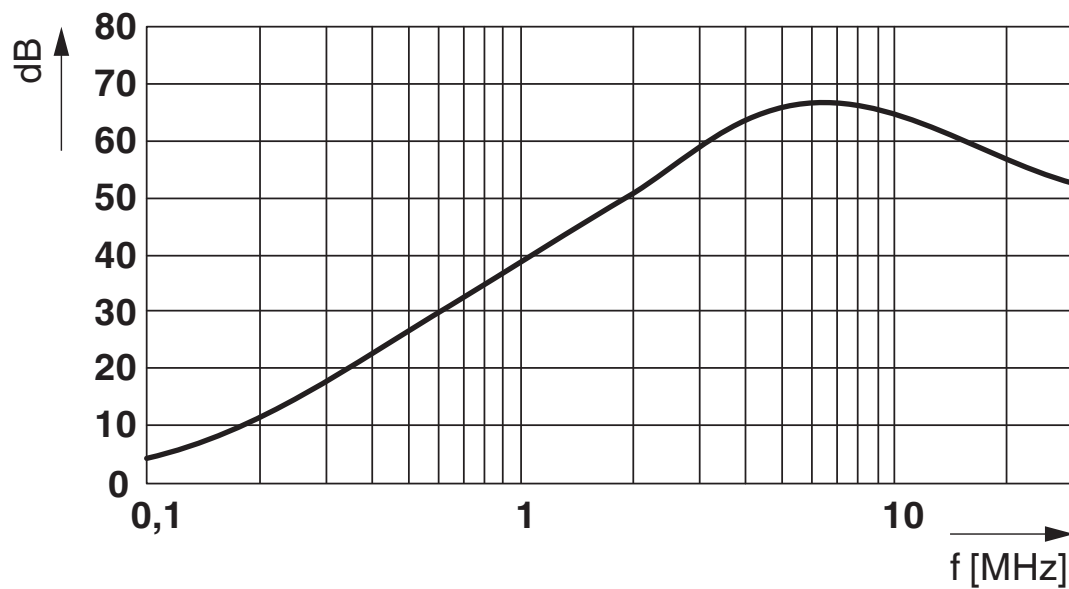
Drawings

Diagram



Frequency-response curve asymmetrical (150 ohms)

Diagram



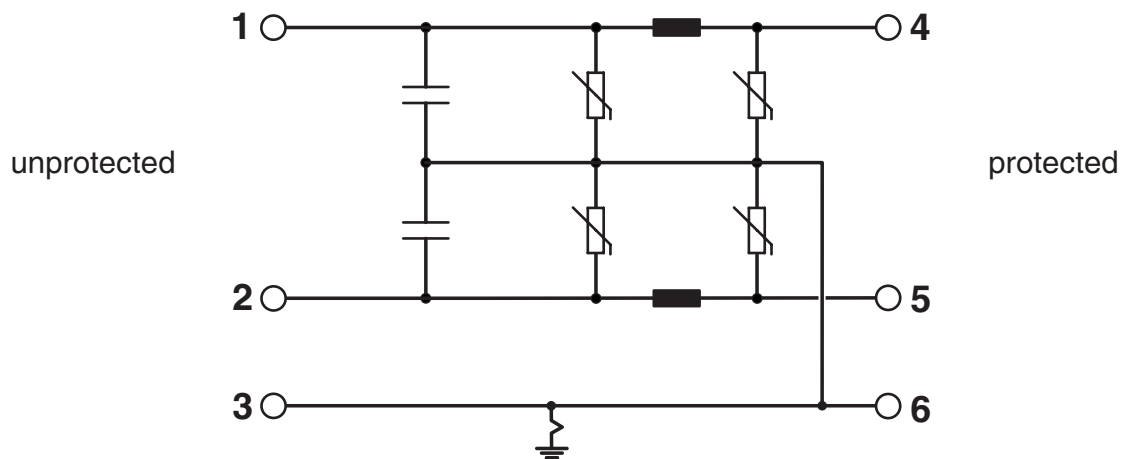
Frequency-response curve symmetrical (50 ohms)

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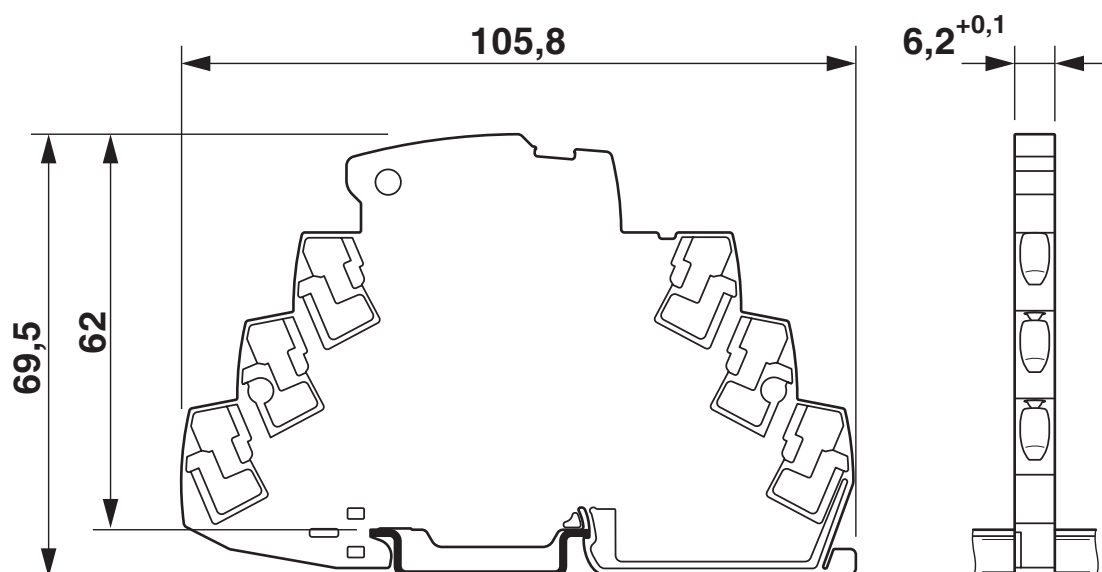
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Circuit diagram



Dimensional drawing



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Classifications

ECLASS

ECLASS-9.0	27130807
ECLASS-10.0.1	27130807
ECLASS-11.0	27130807

ETIM

ETIM 8.0	EC000943
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UNSPSC

UNSPSC 21.0	39121600
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Accessories

Marker pen

Marker pen - X-PEN 0,35 - 0811228

<https://www.phoenixcontact.com/us/products/0811228>



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 6 CUS - 0825027

<https://www.phoenixcontact.com/us/products/0825027>



Zack Marker strip, flat, Strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

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Zack Marker strip, flat

Zack Marker strip, flat - ZBF 6:UNBEDRUCKT - 0808710

<https://www.phoenixcontact.com/us/products/0808710>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 6/WH-100:UNBEDRUCKT - 0808736

<https://www.phoenixcontact.com/us/products/0808736>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 1000

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Zack Marker strip, flat

Zack Marker strip, flat - ZBF 6,QR:FORTL.ZAHLEN - 0808765

<https://www.phoenixcontact.com/us/products/0808765>



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

End clamp

End clamp - CLIPFIX 35-5 - 3022276

<https://www.phoenixcontact.com/us/products/3022276>



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

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